

AMENDMENTS

In the Claims:

Please amend Claims as follows:

Please cancel claims 1-3, 6, 8, 10-14, 16-19, 21, 23, 25-27 and 37-39.

Please add the following new claims:

40. (New) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical over the full length to a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30, and SEQ ID NO:33, wherein the isolated nucleic acid molecule encodes a protein that elicits an immune response against a naturally-occurring canine or feline B7-2 protein or stimulates T cell proliferation; and

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a).

41. (New) An isolated nucleic acid molecule selected from the group consisting of:

(a) a nucleic acid molecule that encodes a naturally-occurring soluble canine or feline B7-2 protein; and

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a).

42. (New) The isolated nucleic acid of Claim 40, wherein said nucleic acid molecule is selected from the group consisting of:

(a) SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30, SEQ ID NO:33; and

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a).

43. (New) The isolated nucleic acid of Claim 41, wherein said nucleic acid molecule is selected from the group consisting of:

(a) SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 and SEQ ID NO:33; and.

(b) a nucleic acid molecule complementary to the nucleic acid molecule of (a)

~~44.~~ (New) An isolated nucleic acid selected from the group consisting of a nucleic acid molecule having a nucleic acid sequence encoding a B7-2 protein that is at least about 95 percent identical to over the full length of an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34, wherein said B7 protein elicits an immune response against a naturally-occurring canine or feline B7-2 protein or stimulates T cell proliferation.

45. (New) The isolated nucleic acid molecule of Claim 44, wherein said amino acid sequence is selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34.

b1
46. (New) An isolated nucleic acid molecule comprising an allelic variant of the nucleic acid molecule of Claims 40-45, wherein said variant nucleic acid molecule encodes a protein that elicits an immune response against a naturally-occurring canine or feline B7-2 protein or stimulates T cell proliferation.

~~47.~~ (New) An isolated nucleic acid molecule consisting of a fragment of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 or SEQ ID NO:33, wherein said fragment is at least about 12 nucleotides of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 or SEQ ID NO:33.

~~48.~~ (New) An isolated nucleic acid molecule consisting of a fragment of a nucleic acid molecule encoding a canine or feline B7-2 protein, wherein said protein has an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34, and wherein said fragment is at least about 12 nucleotides.

49. (New) The isolated nucleic acid molecule of Claims 47 or 48, wherein said fragment has at least about 18 nucleotides.

50. (New) A composition comprising the isolated nucleic acid molecule of Claims 40-49 and an expient.

51. (New) A method to produce a canine or feline B7-2 protein, said method comprising culturing a cell capable of expressing said B7-2 protein, said B7-2 protein being encoded by a nucleic acid molecule selected from the group consisting of:

- (a) a nucleic acid molecule having a nucleic acid sequence that is at least about 95 percent identical over the full length to a nucleic acid sequence selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30, and SEQ ID NO:33; and
- (b) a nucleic acid molecule that encodes a naturally-occurring soluble canine or feline B7-2 protein.

52. (New) The method of Claim 51, wherein said nucleic acid molecule encodes a B7-2 protein that is at least about 95 percent identical over the full length of an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34.

53. (New) The method of Claim 50, wherein said nucleic acid molecule is selected from the group consisting of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 and SEQ ID NO:33.

54. (New) The method of Claim 50, wherein said nucleic acid molecule comprises a nucleic acid sequence that encodes a protein having an amino acid sequence selected from the group consisting of SEQ ID NO:7, SEQ ID NO:17, SEQ ID NO:26, SEQ ID NO:31 and SEQ ID NO:34.

55. (New) The method of Claim 50, wherein the nucleic acid molecule comprises an allelic variant of the nucleic acid molecule of Claims 40-49, wherein said nucleic acid molecule encodes a protein that elicits an immune response against a naturally-occurring canine or feline B7-2 protein or stimulates T cell proliferation.

56. (New) A method to produce a canine or feline B7-2 peptide, said method comprising culturing a cell capable of expressing said B7-2 peptide, said B7-2 peptide being encoded by a nucleic acid molecule consisting of a fragment of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 or SEQ ID NO:33, wherein said fragment is at least about 12 nucleotides of SEQ ID NO:6, SEQ ID NO:9, SEQ ID NO:16, SEQ ID NO:19, SEQ ID NO:25, SEQ ID NO:28, SEQ ID NO:30 or SEQ ID NO:33..

57. (New) The method of Claim 56, wherein said fragment is at least about 12 nucleotides.

58. (New) The method of Claim 56, wherein said fragment is at least about 18 nucleotides.

59. (New) A recombinant molecule comprising a nucleic acid molecule as set forth in Claims 40-49 operatively linked to a transcription control sequence.

60. (New) A recombinant virus comprising a nucleic acid molecule as set forth in Claims 40-49.

61. (New) A recombinant cell comprising a nucleic acid molecule as set forth in Claims 40-49.